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[54] ULTRASONIC TRANSCIVER AND
REMOTE CONTROLLED DEVICES FOR
PETS[76] Inventor: Nicholas J. Bonge, Jr., 1670 Brodica
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367/6; 367/93; 119/719; 119/720[58] Field of Search 340/573, 571,
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[56] References Cited

U.S. PATENT DOCUMENTS

3,897,753	8/1975	McDade et al.	119/51.02
3,980,051	9/1976	Fury	367/6
4,686,504	8/1987	German	340/573
4,733,633	3/1988	Yarnall, Sr. et al.	340/573
4,898,120	2/1990	Brose	340/573
5,121,711	6/1992	Aine	340/573
5,170,149	12/1992	Yarnall, Sr. et al.	340/573
5,177,900	1/1993	Solowiej	49/363
5,207,178	5/1993	McDade	340/573
5,207,179	5/1993	Arthur et al.	340/573
5,241,923	9/1993	Janning	340/573

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[57] ABSTRACT

An ultrasonic transceiver device and remote output devices controlled by the transceiver for use by domestic pets. The transceiver utilizes a fixed interval edge detect modulation system to lock out stray environmental noise thereby, avoiding false triggering and greatly increasing the working range. Output devices include: a wireless pet containment system in which ultrasonic transmitters are mounted on a series of posts defining the perimeter of the containment area and a receiver device adapted to be worn by a domestic animal. Upon receiving the transmitted ultrasound the receiver device sounds a warning tone followed by an electric shock to train the animal to stay within the perimeter; a sonic alarm system to deter a domestic animal from entering a restricted area whereby, an ultrasonic transmitter is worn by the animal and a receiver with an alarm output is placed in a stationary location to sound an alarm chasing the animal from the area in which the receiver is placed; a remote pet training device whereby a hand held transmitter is carried by a human trainer and a receiver unit is worn by the pet, the receiver produces a set of training tones in response to the modulated ultrasound produced by the transmitter; and a remotely operated pet door which automatically opens under its own power when it receives a signal from an ultrasonic transmitter worn by a pet.

20 Claims, 12 Drawing Sheets

